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Claim 1	A process for the temporary supply of a back-up quantity of a "first"
Presently Amended	gas, during the time taken for a vaporizer in a main back-up system to
	come fully on-line, to maintain the level of production of the first gas
	from a cryogenic separation of a gaseous mixture comprising the first
	gas and at least one other gas in the event of reduction in the level of
	production of said first gas from the separation, said separation
	comprising:
	separating the mixture, or a mixture derived therefrom, in at
	least one cryogenic distillation system to produce liquefied first gas, the
	or each system retaining a portion of said liquefied first gas as
	inventory; and
	vaporizing vaporizing a further portion of said liquefied first gas
	by indirect heat exchange against a process stream in at least one
	heat exchanger to produce said first gas;
	said process comprising, in the event of reduction in the level of
·	production of said first gas from the separation, withdrawing liquefied
	first gas inventory from the or at least one of said cryogenic distillation
	systems and vaporizing vaporizing the withdrawn liquefied first gas
•	inventory to produce said back-up quantity of first gas.
	wherein at least a portion of the vaporization duty required to vaporize
	said withdrawn liquefied first gas inventory is provided by heat
	inventory from the or at least one of said heat exchangers.
Claim 2	The process according to Claim 1 wherein the process operates when
Original	the or at least one of the cryogenic distillation systems ceases to
Ongina	produce liquefled first gas.
Claim 3	The process-according to Claim 1 wherein at least a portion of the
Cancelled	vaporication duty required to vaporice said withdrawn liquofied first gas
Cancelled	1
	inventory is provided by heat inventory from the or at least one of said
	heat-exchangers.

Claim 4	The process according to Claim 1 wherein there is one cryogenic
Presently Amended	distillation system and said system ceases to produce liquefied first
riesonay Americea	gas, said process comprising withdrawing liquefied first gas inventory
•	
	from said cryogenic distillation system and <u>vaporizing</u> the
	withdrawn liquefied first gas inventory to produce said back-up quantity
	of first gas.
Claim 5	The process according to Claim 1 wherein there is more than one
Presently Amended	cryogenic distillation system and one of said cryogenic distillation
	systems ceases to produce liquefied first gas, said process comprising
	withdrawing liquefied first gas inventory from the cryogenic distillation
	system in which liquefied first gas production has ceased and
	vaporizing vaporizing the withdrawn liquefied first gas inventory to
	produce said back-up quantity of first gas.
Claim 6	The process according to Claim 1 wherein there is more than one
Presently Amended	cryogenic distillation system and one of said cryogenic distillation
	systems ceases to produce liquefied first gas, said process comprising
	withdrawing liquefied first gas inventory from the or each cryogenic
,	distillation system in which liquefied first gas production has not ceased
	and vaporizing vaporizing the withdrawn liquefied first gas inventory to
	produce said back-up quantity of first gas.
Claim 7	The process according to Claim 6 wherein, for each cryogenic
Presently Amended	distillation system, said separation further comprises:
•	compressing said mixture to produce compressed mixture;
	dividing said compressed mixture or a mixture derived
	therefrom into at least two portions;
	cooling a first portion by indirect heat exchange in a heat
	exchanger and feeding the resultant cooled first portion to the
	cryogenic distillation system for separation;
	further compressing a second portion in a booster compressor
	to produce further compressed mixture; and
	to produce futilier compressed mixture, and

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	cooling and condensing said further compressed mixture by
	indirect heat exchange in the or a further heat exchanger and feeding
	the resultant cooled and condensed further compressed mixture to the
	cryogenic distillation system for separation,
	said process further comprising, in the event of one of said cryogenic
	distillation systems ceasing to produce liquefied first gas, increasing
	the flow of the second portion through the booster compressor of the or
	each remaining cryogenic distillation system such that the resultant
	increased flow of further compressed mixture through said the or
,	further heat exchanger of the or each remaining cryogenic distillation
	system provides a portion of the <u>vaporization</u> -duty
	required to <u>vaporize_vaporise</u> _said withdrawn liquefied first gas
	inventory to provide said back-up quantity of first gas.
Claim 8	The process according to Claim 1 wherein the process is initiated
Original	automatically when the or at least one cryogenic distillation system
	ceases to produce liquefied first gas.
Claim 9	The process according to Claim 1 wherein liquefied first gas is stored
Presently Amended	for <u>vaporization</u> vaporisation in at least one <u>vaporizer</u> vaporiser to
	produce back-up first gas in the event of reduction in the level of
	production of said first gas from the separation, said process operating
	only during the period of time required for the or each vaporizer
·	vaporiser to come on-line.
Claim 10	The process according to Claim 1 wherein the first gas is produced in
Original	more than one cryogenic distillation system and is supplied to more
	than one downstream processing unit, said process being operated
	only during the period of time required to turndown or shutdown one of
	the downstream processing units in the event that one of the distillation
	systems ceases to produce liquefied first gas.

Claim 11	The process according to Claim 1 wherein the gaseous mixture is air
Presently Amended	and the first gas is one of oxygen, nitrogen or argon.
Claim 12	The process according to Claim 11 wherein the gaseous mixture is air
Original	and the first gas is oxygen.
Claim 13	A process for the temporary supply of a back-up quantity of a "first"
Presently Amended	gas, during the time taken for a vaporizer in a main back-up system to
	come fully on-line, to maintain the level of production of the first gas
۰	from a cryogenic separation of a gaseous mixture comprising the first
	gas and at least one other gas in the event of reduction in the level of
	production of said first gas from the separation, said separation
	comprising:
	separating the mixture, or a mixture derived therefrom, in one
	cryogenic distillation system to produce liquefied first gas, the
	cryogenic distillation system retaining a portion of said liquefled first
	gas as inventory; and
	<u>vaporizing</u> vaporizing a further portion of said liquefied first gas
	by indirect heat exchange against a process stream in at least one
	heat exchanger to produce said first gas;
	said process comprising, in the event of reduction in the level of
	production of said first gas from the separation due to said cryogenic
	distillation system ceasing to produce <u>liquefied</u> liquified first gas,
	withdrawing liquefied first gas inventory from the cryogenic distillation
	system and <u>vaporizing</u> the withdrawn liquefied first gas
	inventory to produce said back-up quantity of first gas.
	wherein at least a portion of the vaporization duty required to vaporize
	said withdrawn liquefied first gas inventory is provided by heat
	inventory from the or at least one of said heat exchangers.
Claim 14	A process for the temporary supply of a back-up quantity of a "first"
Presently Amended	gas, during the time taken for a vaporizer in a main back-up system to
	come fully on-line, to maintain the level of production of the first gas

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and

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from a cryogenic separation of a gaseous mixture comprising the first gas and at least one other gas in the event of reduction in the level of production of said first gas from the separation, said separation comprising:

separating the mixture, or a mixture derived therefrom, in more than one cryogenic distillation system to produce liquefied first gas, each system retaining a portion of said liquefied first gas as inventory;

<u>vaporizing</u> vaporizing a further portion of said liquefied first gas by indirect heat exchange against a process stream in at least one heat exchanger to produce said first gas;

eald process comprising, in the event of reduction in the level of production of said first gas from the separation due to one of said cryogenic distillation systems ceasing to produce liquefied first gas, withdrawing liquefied first gas inventory from the cryogenic distillation system in which liquefied first gas production has ceased and <a href="mailto:vaporizing\_vaporizing\_the">vaporizing\_the withdrawn liquefied first gas inventory to produce said back-up quantity of first gas</a>.

wherein at least a portion of the vaporization duty required to vaporize said withdrawn liquefied first gas inventory is provided by heat inventory from the or at least one of said heat exchangers.

## Claim 15 Presently Amended

A process for the temporary supply of a back-up quantity of a "first" gas, during the time taken for a vaporizer in a main back-up system to come fully on-line, to maintain the level of production of the first gas from a cryogenic separation of a gaseous mixture comprising the first gas and at least one other gas in the event of reduction in the level of production of said first gas from the separation, said separation comprising:

separating the mixture, or a mixture derived therefrom, in more than one cryogenic distillation system to produce liquefied first gas,

	each system retaining a portion of said liquefied first gas as inventory;
	and
·	vaporizing vaporizing a further portion of said liquefied first gas
	by indirect heat exchange against a process stream in at least one
	heat exchanger to produce said first gas;
	said process comprising, in the event of reduction in the level of
	production of said first gas from the separation due to one of said
	cryogenic distillation systems ceasing to produce liquefied first gas,
	withdrawing liquefied first gas inventory from the or each one of said
	cryogenic distillation systems in which liquefied first gas production has
	not ceased and vaporizing vaporizing the withdrawn liquefied first gas
	inventory to produce said back-up quantity of first gas₄
	wherein at least a portion of the vaporization duty required to vaporize
	said withdrawn liquefied first gas inventory is provided by heat
	inventory from the or at least one of said heat exchangers.
Claim 16	The process according to Claim 15 wherein the gaseous mixture is air
Original	and the first gas is oxygen.